

Attorney Docket No.: **IFF-66 (IFF-0010)**
Inventors: **Hiserodt, Richard D.**
Serial No.: **10/671,411**
Filing Date: **September 24, 2003**
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REMARKS

Claims 1-9 are pending in this application. Claims 1-9 have been rejected. Claim 4 has been amended and claim 5 has been canceled. No new matter has been added by this amendment. Reconsideration is respectfully requested in light of the following remarks.

I. Rejection of Claims Under 35 U.S.C. §102

Claims 1-9 have been rejected under 35 U.S.C. 102(b) as being anticipated by WO 87/03803. The Examiner suggests that the '803 application teaches a method of making a composition from *Lycium halimifolium* (i.e., *L. barbarum*), where the plant is extracted with ethanol for 12 to 36 hours and then filtered to obtain the extract solution. It is acknowledged that this reference does not specifically teach that the plant extract contains monomenthyl succinate; however, it is suggested that the reference extract would inherently have to contain all the same components as the claimed extract as the same solvent and extraction steps are disclosed. Applicants respectfully disagree.

Because of food labeling guidelines, monomenthyl succinate could not, prior to the instant invention, be produced and sold as a natural flavor. The prior art is silent to the identification of monomenthyl succinate in nature and the extraction of monomenthyl succinate from any plant species, in particular those presently claimed. The instant application for the first time provides the necessary teachings for isolating monomenthyl succinate from a natural source. The plant extract of the present invention is obtained by placing plant biomass in 95% ethanol for 10-24 hours and subsequently filtering the extract to

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remove plant biomass (see Example 1). The resulting plant extract contains between 0.5 and 1000 parts per million monomenthyl succinate. In contrast, the '803 application teaches extracts from dried and crushed *L. halimifolium*, wherein the plant material was extracted for 20 minutes to 12 hours with water (Examples 1, 2, 4, 5) or for 36 hours in 70% ethanol (Example 3), filtered, and stored. Further, based on the optimization of extraction conditions disclosed in the instant specification, it would not be inherent that the extract of the '803 application would contain between 0.5 and 1000 parts per million monomenthyl succinate. The courts have held that inherency can not be based on what would result due to optimization of conditions; In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). MPEP 2112. In an effort to highlight the extraction conditions necessary to achieve the claimed composition, Applicants have amended claim 4 to indicate that extraction is carried out for 10 to 24 hours in 95% ethanol. In light of this amendment, claim 5 has been canceled. Because the '803 application fails to teach or suggest each and every limitation of the claims, this reference fails to anticipate the instant invention. It is therefore respectfully requested that this rejection be reconsidered and withdrawn.

Claims 1-9 have further been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,776,461. It is suggested that the '461 patent teaches a method of making an extract from peppermint (*Mentha piperita*) by extracting plant material in ethanol for at least 20 hours and then separating the extract. It is acknowledged that this reference does not specifically teach that the plant extract contains monomenthyl

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succinate; however, it is suggested that the reference extract would inherently have to contain all the same components as the claimed extract as the same solvent and extraction steps are disclosed. Applicants respectfully disagree.

The '461 patent teaches at column 5 (lines 53-55) and column 7 (lines 9-17) that plant extracts are obtained using solvents such as water, ethanol, methanol, hexane, chloroform, dichloromethane and ethylacetate. Specifically, this reference teaches a peppermint extract obtained by extracting the peppermint leaf material "for at least 20 hours with ethanol (1 part leaf material to 10-24 parts solvent)." See column 10, lines 63-65. Nowhere does this reference teach or suggest an ethanol concentration. In contrast, the plant extract of the present invention is obtained by placing plant biomass in 95% ethanol for 10-24 hours and subsequently filtering the extract to remove plant biomass. The resulting plant extract contains between 0.5 and 1000 parts per million monomenthyl succinate; a composition neither taught nor suggested in the teachings of the '461 patent. Further, based on the optimization of extraction conditions disclosed in the instant specification, it would not be inherent that the extract of the '461 patent would contain between 0.5 and 1000 parts per million monomenthyl succinate. Because the '461 patent fails to teach or suggest each and every limitation set forth in the amended claims, this reference does not anticipate the instant invention. It is therefore respectfully requested that this rejection be reconsidered and withdrawn.

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II. Rejection of Claims Under 35 U.S.C. §103

Claims 1-9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over WO 87/03803. The Examiner suggests that while the '803 application does not specifically teach performing the extraction for all the times claimed by Applicants, the reference does teach a wide variety of extraction times can be used. It is suggested that the extraction time is a variable that can be optimized in order to achieve the extraction as set forth by the reference and therefore, a person of ordinary skill would reasonably arrive at the extraction times claimed by Applicants. Applicants respectfully disagree.

At the outset, Applicants respectfully believe that impermissible hindsight has been used to establish this obviousness rejection. Because the prior art is silent to the identification of monomethyl succinate from a natural source, one of skill in the art would not know what plant to use or what extraction procedure to modify to achieve the plant extract set forth in the instant invention.

MPEP § 2143 states that to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must both be found in the prior art, and not based on the Applicants'

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disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The '803 application fails to meet these basic criteria for the following reasons. Example 3 of the '803 application specifically teaches extracting dried and crushed *L. halimifolium* in 70% ethanol for 36 hours. All other Examples teach water extraction. Nowhere in this reference is there a suggestion or motivation to modify the teachings of Example 3 to use other ethanol extraction conditions (e.g., 95% ethanol for 10-24 hours) for obtaining a *L. halimifolium* extract containing between 0.5 and 1000 parts per million monomenthyl succinate. Further, because this reference is silent to the content of monomenthyl succinate in the *L. haliminifolium* extract disclosed therein, there would be no reasonable expectation of successfully obtaining an extract containing between 0.5 and 1000 parts per million monomenthyl succinate by modifying the teachings therein. Moreover, this reference fails to teach or suggest all the claim limitations, namely extracting plant biomass in 95% ethanol for 10 to 24 hours. Thus, this reference fails to establish a *prima facie* case of obviousness in accord with MPEP § 2143. It is therefore respectfully requested that this rejection be reconsidered and withdrawn.

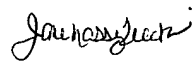
III. Conclusion

The Applicants believe that the foregoing comprises a full and complete response to the Office Action of record.

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Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,



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